

What is claimed is:

1. An electric compressor comprising:
  - a compressor housing having a central axis and including a circumferential wall around the central axis;
  - a compression mechanism arranged in the compressor housing for compressing fluid;
  - an electric motor operatively connected to the compression mechanism for driving the compression mechanism;
- 10 an accommodating portion provided on an outer surface of the compressor housing, the accommodating portion defining an accommodating space, an inner surface of the accommodating space including a bottom surface and a side surface, the bottom surface being defined as a radially inward surface of the inner surface relative to the central axis, the side surface surrounding a periphery of the bottom surface, the bottom and side surfaces being defined by the compressor housing; and
  - a motor drive circuit arranged in the accommodating space for driving the electric motor.
- 20 2. The electric compressor according to claim 1, further comprising:
  - a first insulating member interposed between the bottom surface and the motor drive circuit.

3. The electric compressor according to claim 1, wherein the compressor housing includes a frame-shaped side wall that extends from the circumferential wall to a distal end thereof, the side wall defining the side surface of the accommodating space, the accommodating portion including a cover member that is fixedly connected to the distal end of the side wall to cover an opening of the side wall, the cover member defining a top surface of the accommodating space.
- 10 4. The electric compressor according to claim 3, wherein the top surface is positioned above the distal end of the side wall relative to the bottom surface.
5. The electric compressor according to claim 3, wherein the distal end of the side wall is positioned above the motor drive circuit relative to the bottom surface.
- 15 6. The electric compressor according to claim 3, wherein the top surface is positioned below the distal end of the side wall relative to the bottom surface.
- 20 7. The electric compressor according to claim 3, wherein the cover member is made of metal, the compressor further comprising:  
a second insulating member interposed between the top surface of the

accommodating space and the motor drive circuit.

8. The electric compressor according to claim 1, wherein the circumferential wall having a substantially cylindrical surface, the motor drive circuit includes:

5        a substrate arranged on the circumferential wall;  
            a plurality of electrical components mounted on the substrate on the near side relative to the central axis, the electrical components including short electrical components having relatively short height from the substrate and tall electrical components having relatively tall height from the substrate, wherein the  
10        electrical components line the cylindrical surface of the circumferential wall in such a manner that the short and tall electrical components are respectively arranged on the substrate on the near and far portions relative to the central axis.

9. The electric compressor according to claim 8, wherein the  
15        accommodating space is formed along the cylindrical surface of the circumferential wall.

10. The electric compressor according to claim 1, wherein the compression mechanism is a scroll type.

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11. A compressor driven by an electric motor, the electric motor being driven by a motor drive circuit, the compressor comprising:

a housing having a central axis and including a circumferential wall around the central axis, the housing partially defining an accommodating space on the circumferential wall for accommodating the motor drive circuit, the circumferential wall having a substantially cylindrical surface, an inner surface of 5 the accommodating space including bottom and side surfaces, the bottom surface partially including the substantially cylindrical surface, the side surface surrounding a periphery of the bottom surface; and

a compression mechanism arranged in the housing for compressing fluid.

10 12. The compressor according to claim 11, further comprising:  
a first insulating member interposed between the bottom surface and the  
motor drive circuit.

13. The compressor according to claim 11, wherein the housing includes a  
15 frame-shaped side wall that extends from the circumferential wall to a distal end thereof, the side wall defining the side surface of the accommodating space, the  
compressor further comprising:  
a cover member cover member fixedly connected to the distal end of the  
side wall to cover an opening of the side wall, the cover member defining a top  
20 surface of the accommodating space.

14. The compressor according to claim 13, wherein the distal end of the side

wall is positioned above the motor drive circuit relative to the bottom surface.

15. The compressor according to claim 13, wherein the cover member is made of metal, the compressor further comprising:

5 a second insulating member interposed between the top surface of the accommodating space and the motor drive circuit.

16. The compressor according to claim 11, wherein the motor drive circuit includes:

10 a substrate arranged in the accommodating space;  
a plurality of electrical components mounted on the substrate on the near side relative to the central axis, the electrical components including short electrical components having relatively short height from the substrate and tall electrical components having relatively tall height from the substrate, wherein the  
15 electrical components line the substantially cylindrical surface of the circumferential wall in such a manner that the short and tall electrical components are respectively arranged on the substrate on the near and far portions relative to the central axis.

20 17. A compressor housing for arranging an electrical circuit thereon, the compressor housing comprising:

a circumferential wall having a substantially cylindrical surface; and

at least a part of accommodating portion provided on a circumferential wall of the compressor housing for accommodating the electrical circuit, the part of accommodating portion at least partially defining an accommodating space, an inner surface of the accommodating space including bottom and side surfaces,

5 the bottom surface at least partially including the substantially cylindrical surface, the side surface surrounding a periphery of the bottom surface and extending from the circumferential wall of the compressor housing.

18. The compressor housing according to claim 17, wherein the part of  
10 accommodating portion includes a frame-shaped side wall that extends from the circumferential wall of the compressor housing to a distal end thereof, the side wall defining the side surface of the accommodating space.

19. The compressor housing according to claim 18, wherein the distal end of  
15 the side wall is positioned above the electrical circuit relative to the bottom surface.